

**NEW SOURCE CONSTRUCTION PERMIT  
and MINOR SOURCE OPERATING PERMIT  
OFFICE OF AIR MANAGEMENT**

**Heartland Aluminum  
125 South Nancy  
Warren, Indiana 46792**

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-5.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 069-10650-00060	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

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## SECTION A

## SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the source contained in conditions A.1 through A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

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The Permittee owns and operates a stationary secondary metals processing (reclamation) source consisting of an aluminum sweating furnace with a thermal afterburner.

Authorized Individual: Michael Haggerty  
Source Address: 125 South Nancy, Warren, Indiana 46792  
Mailing Address: P.O. Box 150, Warren, Indiana 46792  
Phone Number: (219) 375-4650  
SIC Code: 5093, 3341  
County Location: Huntington  
County Status: Attainment for all criteria pollutants  
Source Status: Minor Source Operating Permit  
Minor Source under PSD Rules

### A.2 Emissions units and Pollution Control Equipment Summary

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This stationary source is approved to construct and operate the following emissions units and pollution control devices:

- (a) One (1) aluminum sweating furnace identified as AS-1000 with a maximum capacity of 1,000 pounds of scrap metal processed per hour. The furnace is equipped with a primary metal melting chamber utilizing a natural gas fired burner rated at 2.0 million (MM) British thermal units (Btu) per hour total; a secondary molten metal holding chamber utilizing a natural gas fired burner rated at 1.0 MMBtu per hour; and a 0.4 MMBtu per hour natural gas fired thermal afterburner utilized for particulate matter and volatile organic compound control exhausting at one (1) stack identified as EP-01.

## SECTION B GENERAL CONSTRUCTION CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

### B.1 Permit No Defense [IC 13]

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This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

### B.2 Definitions

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Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

**B.3 Effective Date of the Permit [IC13-15-5-3]**

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Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

**B.4 Revocation of Permits [326 IAC 2-1.1-9(5)]**

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Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

**B.5 Modification to Permit [326 IAC 2]**

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All requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

**B.6 Minor Source Operating Permit [326 IAC 2-6.1]**

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This document shall also become a minor source operating permit pursuant to 326 IAC 2-6.1 when, prior to start of operation, the following requirements are met:

- (a) The attached affidavit of construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section, verifying that the emissions units were constructed as proposed in the application. The emissions units covered in the New Source Construction Permit may begin operating on the date the affidavit of construction is postmarked or hand delivered to IDEM.
- (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
- (c) The Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.
- (d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1.1-7(Fees).
- (e) The Permittee shall submit an applicability determination to IDEM, OAM within 30 days of the date of final promulgation of 40 CFR 63, Subpart RRR, for that rule and the Part 70 operating permit requirements of 326 IAC 2-7. The Permittee shall comply as follows:
  - (1) Should it be determined that the source is subject to the Part 70 operating permit requirements, then pursuant to 326 IAC 2-7-4 and 326 IAC 2-5.1-4, the Permittee shall apply for a Title V operating permit within the time frame stated in the written notification by IDEM, OAM. The operation permit issued shall contain as a minimum the conditions in Section C and Section D of this permit.
  - (2) Should it be determined that the source is not subject to the Part 70 operating permit requirements, then:

- (i) The Permittee shall maintain such notification in accordance with Section C - General Record Keeping Requirements of this permit.
- (ii) Pursuant to 326 IAC 2-6.1-7, the Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date established in the validation letter. If IDEM, OAM, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied. The operation permit issued shall contain as a minimum the conditions in Section C and Section D of this permit.

## SECTION C

## SOURCE OPERATION CONDITIONS

Entire Source
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### C.1 PSD Minor Source Status [326 IAC 2-2] [40 CFR 52.21]

- (a) The total source potential to emit of particulate matter is less than 100 tons per year. Therefore the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 will not apply.
- (b) Any change or modification which may increase potential to emit to 100 tons per year from this source, shall cause this source to be considered a major source under PSD, 326 IAC 2-2 and 40 CFR 52.21, and shall require approval from IDEM, OAM prior to making the change.

### C.2 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this permit, including the following information on each emissions unit:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond its control, the PMP cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Management  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that lack of proper maintenance does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM.

C.3 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

- (a) The Permittee must comply with the requirements of [326 IAC 2-6.1-6] whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:  
  
Indiana Department of Environmental Management  
Permits Branch, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
  
Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1.
- (c) The Permittee shall notify the OAM within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

C.4 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, the Permittee shall allow IDEM, OAM, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;
- (c) Inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

- (1) The Permittee may assert a claim that, in the opinion of the Permittee, information removed or about to be removed from the source by IDEM, OAM, or an authorized representative, contains information that is confidential under IC 5-14-3-4(a). The claim shall be made in writing before or at the time the information is removed from the source. In the event that a claim of confidentiality is so asserted, neither IDEM, OAM, nor an authorized representative, may disclose the information unless and until IDEM, OAM, makes a determination under 326 IAC 17-1-7 through 326 IAC 17-1-9 that the information is not entitled to confidential treatment and that determination becomes final. [IC 5-14-3-4; IC 13-14-11-3; 326 IAC 17-1-7 through 326 IAC 17-1-9]
- (2) The Permittee and IDEM, OAM, acknowledge that the federal law applies to claims of confidentiality made by the Permittee with regard to information removed or about to be removed from the source by U.S. EPA. [40 CFR Part 2, Subpart B]

C.5 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)] :

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAM, Permits Branch, within thirty (30) days of the change.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).
- (c) IDEM, OAM, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

C.6 Permit Revocation [326 IAC 2-1-9]

Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

**C.7 Opacity [326 IAC 5-1]**

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Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

**C.8 Fugitive Dust Emissions [326 IAC 6-4]**

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The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

**C.9 Stack Height [326 IAC 1-7]**

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The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using ambient air quality modeling pursuant to 326 IAC 1-7-4.

**Testing Requirements**

**C.10 Performance Testing [326 IAC 3-6]**

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- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing methods approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Management  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

- (b) All test reports must be received by IDEM, OAM, within forty-five (45) days after the completion of the testing. An extension may be granted by the Commissioner, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

## Compliance Monitoring Requirements

### C.11 Compliance Monitoring [326 IAC 2-1.1-11]

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Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment, no more than ninety (90) days after receipt of this permit. If due to circumstances beyond its control, this schedule cannot be met, the Permittee may extend the compliance schedule an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Management  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date. The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

### C.12 Maintenance of Monitoring Equipment [IC 13-14-1-13]

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- (a) In the event that a breakdown of the monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less than one (1) hour until such time as the continuous monitor is back in operation.
- (b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

### C.13 Monitoring Methods [326 IAC 3]

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Any monitoring or testing performed to meet the applicable requirements of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

### C.14 Thermal Afterburner Temperature Specifications

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Whenever a condition in this permit requires the measurement of the temperature in the gas stream in the combustion zone of the control device, the temperature monitoring device shall have an accuracy of one percent (1%) of the temperature being measured in degrees Centigrade, or plus or minus five-tenths degrees Centigrade ( $\pm 0.5$  EC), whichever is more accurate.

### C.15 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 1-6]

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- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:

- (1) This condition;
  - (2) The Compliance Determination Requirements in Section D of this permit;
  - (3) The Compliance Monitoring Requirements in Section D of this permit;
  - (4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
  - (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of :
    - (A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
    - (B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this permit, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the permit unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.
- (c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:
- (1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
  - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied or;
  - (3) An automatic measurement was taken when the process was not operating; or
  - (4) The process has already returned to operating within "normal" parameters and no response steps are required.

- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

**C.16 Actions Related to Noncompliance Demonstrated by a Stack Test**

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- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected emissions unit while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected emissions unit.

The documents submitted pursuant to this condition do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

**Record Keeping and Reporting Requirements**

**C.17 Malfunctions Report [326 IAC 1-6-2]**

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Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAM, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).

- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.18 Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) With the exception of performance tests conducted in accordance with Section C-Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.
- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.
- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.19 General Record Keeping Requirements [326 IAC 2-6.1-2]

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM, representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Records of required monitoring information shall include, where applicable:
  - (1) The date, place, and time of sampling or measurements;
  - (2) The dates analyses were performed;
  - (3) The company or entity performing the analyses;
  - (4) The analytic techniques or methods used;

- (5) The results of such analyses; and
- (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
  - (1) Copies of all reports required by this permit;
  - (2) All original strip chart recordings for continuous monitoring instrumentation;
  - (3) All calibration and maintenance records;
  - (4) Records of preventive maintenance shall be sufficient to demonstrate that improper maintenance did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.20 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Semi-annual Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported. The Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:  
  
Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Management  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any semi-annual report shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) All instances of deviations must be clearly identified in such reports. A reportable deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:
- (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
  - (2) A malfunction as described in 326 IAC 1-6-2; or
  - (3) Failure to implement elements of the Preventive Maintenance Plan unless lack of maintenance has caused or contributed to a deviation.
  - (4) Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred or failure to monitor or record the required compliance monitoring is a deviation.

- (f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.
- (g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

## SECTION D.1

### EMISSIONS UNIT OPERATION CONDITIONS

#### Emissions Unit Description:

- (a) One (1) aluminum sweating furnace identified as AS-1000 with a maximum capacity of 1,000 pounds of scrap metal processed per hour. The furnace is equipped with a primary metal melting chamber utilizing a natural gas fired burner rated at 2.0 million (MM) British thermal units (Btu) per hour total; a secondary molten metal holding chamber utilizing a natural gas fired burner rated at 1.0 MMBtu per hour; and a 0.4 MMBtu per hour natural gas fired thermal afterburner utilized for particulate matter and volatile organic compound control exhausting at one (1) stack identified as EP-01.

### Emission Limitations and Standards

#### D.1.1 Particulate Matter (PM) [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from metal processing in the aluminum sweating furnace shall not exceed 2.6 pounds per hour when operating at a process weight rate of 0.5 tons of metal per hour, as determined with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and  
P = process weight rate in tons per hour

## **Compliance Determination Requirements**

### **D.1.2 Testing Requirements [326 IAC 2-1.1-11]**

The Permittee is not required to test this emissions unit by this permit. However, IDEM may require compliance testing when necessary to determine if the emissions unit is in compliance. If testing is required by IDEM, compliance with the particulate matter limit specified in Condition D.1.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

## **Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]**

### **D.1.3 Particulate Matter (PM)**

The thermal afterburner for PM control shall be in operation at all times when the aluminum sweating furnace is in operation.

### **D.1.4 Visible Emissions Notations**

- (a) Daily visible emission notations of the aluminum sweat furnace stack exhaust (i.e., stack ID EP-01) shall be performed during normal daylight operations when the furnace is operating and exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

### **D.1.5 Parametric Monitoring**

The Permittee shall continuously record the temperature in the gas stream in the combustion zone of the thermal afterburner when the aluminum sweating furnace is in operation and when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the thermal afterburner combustion zone temperature shall be maintained for all 3-hour periods of operation at or above 1600 degrees Fahrenheit (EF), or at a different minimum temperature established during the most recent stack test that demonstrated the facility to be in compliance with 326 IAC 6-3-2. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the average temperature reading is outside of the above mentioned range for any one reading.

The instrument used for determining the temperature shall comply with Section C - Thermal Afterburner Temperature Specifications, of this permit, shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every month.

## **Record Keeping and Reporting Requirement [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]**

### **D.1.6 Record Keeping Requirements**

- (a) To document compliance with Conditions D.1.3 and D.1.4, the Permittee shall maintain records of daily visible emission notations of the aluminum sweat furnace stack exhaust.

- (b) To document compliance with Condition D.1.5, the Permittee shall maintain the following:
  - (1) Daily records of the following operational parameters during normal operation when venting to the atmosphere:
    - (A) The 3-hour average temperature in the gas stream in the combustion zone of the thermal afterburner when the aluminum sweating furnace is in operation
  - (2) Documentation of all response steps implemented, per event .
  - (3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.
  - (4) Quality Assurance/Quality Control (QA/QC) procedures.
  - (5) Operator standard operating procedures (SOP).
  - (6) Manufacturer's specifications or its equivalent.
  - (7) Equipment "troubleshooting" contingency plan.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.1.7 Reporting Requirements

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There are no specific reporting requirements for this facility.

### **MALFUNCTION REPORT**

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR MANAGEMENT  
FAX NUMBER - 317 233-5967**

**This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6  
and to qualify for the exemption under 326 IAC 1-6-4.**

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ? \_\_\_\_\_, 25 TONS/YEAR SULFUR DIOXIDE ? \_\_\_\_\_, 25 TONS/YEAR NITROGEN OXIDES? \_\_\_\_\_, 25 TONS/YEAR VOC ? \_\_\_\_\_, 25 TONS/YEAR HYDROGEN SULFIDE ? \_\_\_\_\_, 25 TONS/YEAR TOTAL REDUCED SULFUR ? \_\_\_\_\_, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ? \_\_\_\_\_, 25 TONS/YEAR FLUORIDES ? \_\_\_\_\_, 100TONS/YEAR CARBON MONOXIDE ? \_\_\_\_\_, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ? \_\_\_\_\_, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ? \_\_\_\_\_, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ? \_\_\_\_\_, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ? \_\_\_\_\_. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION \_\_\_\_\_.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC \_\_\_\_\_, OR, PERMIT CONDITION # \_\_\_\_\_ AND/OR PERMIT LIMIT OF \_\_\_\_\_.

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ?    Y        N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ?    Y        N

COMPANY: Heartland Aluminum PHONE NO. ( 219 ) 375 - 4650

LOCATION: (CITY AND COUNTY) Warren, Huntington County  
PERMIT NO. MSOP 069-10650-00060 AFS PLANT ID: \_\_\_\_\_ AFS POINT ID: \_\_\_\_\_ INSP: \_\_\_\_\_  
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: \_\_\_\_\_

DATE/TIME MALFUNCTION STARTED: \_\_\_\_/\_\_\_\_/19\_\_\_\_ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: \_\_\_\_\_

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE \_\_\_\_/\_\_\_\_/19\_\_\_\_ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO<sub>2</sub>, VOC, OTHER: \_\_\_\_\_

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: \_\_\_\_\_

MEASURES TAKEN TO MINIMIZE EMISSIONS: \_\_\_\_\_

**REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:**

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL\* SERVICES: \_\_\_\_\_  
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: \_\_\_\_\_  
CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: \_\_\_\_\_  
INTERIM CONTROL MEASURES: (IF APPLICABLE) \_\_\_\_\_

MALFUNCTION REPORTED BY: \_\_\_\_\_ TITLE: \_\_\_\_\_  
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

PAGE 1 OF 2

**Please note - This form should only be used to report malfunctions  
applicable to Rule 326 IAC 1-6 and to qualify for  
the exemption under 326 IAC 1-6-4.**

**326 IAC 1-6-1            Applicability of rule**

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

**326 IAC 1-2-39            “Malfunction” definition**

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

**\*Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

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PAGE 2 OF 2

**Indiana Department of Environmental Management  
Office of Air Management**

**Technical Support Document (TSD) for a New Source Construction and  
Minor Source Operating Permit**

**Source Background and Description**

**Source Name:** Heartland Aluminum  
**Source Location:** 125 S Nancy, Warren, Indiana 46792  
**County:** Huntington  
**SIC Code:** 5093, 3341  
**Operation Permit No.:** MSOP069-10650-00060  
**Permit Reviewer:** Michael Hirtler/EVP

The Office of Air Management (OAM) has reviewed an application from Heartland Aluminum relating to the construction and operation of an aluminum sweating furnace with thermal afterburner at this secondary metals processing (reclamation) source.

**Permitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) aluminum sweating furnace identified as AS-1000 with a maximum capacity of 1,000 pounds of scrap metal processed per hour. The furnace is equipped with a primary metal melting chamber utilizing a natural gas fired burner rated at 2.0 million (MM) British thermal units (Btu) per hour total; a secondary molten metal holding chamber utilizing a natural gas fired burner rated at 1.0 MMBtu per hour; and a 0.4 MMBtu per hour natural gas fired thermal afterburner utilized for particulate matter and volatile organic compound control exhausting at one (1) stack identified as EP-01.

**Unpermitted Emission Units and Pollution Control Equipment**

There are no unpermitted facilities operating at this source during this review process.

**Existing Approvals**

This is a new source and no previous permits, registrations, modifications, or exemptions have been issued to the source.

**Stack Summary**

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
EP-01	sweat furnace	28	2	1,803	1,500

**Enforcement Issue**

There are no enforcement actions pending.

## Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on February 9, 1999.

## Emission Calculations

See Appendix A of this document for detailed emissions calculations (two (2) pages).

## Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
Particulate Matter	31.87
Particulate Matter (PM10)	29.24
Sulfur Dioxide (SO <sub>2</sub> )	7.68
Volatile Organic Compounds (VOC)	0.52
Carbon Monoxide (CO)	0.60
Nitrogen Oxides (NO <sub>x</sub> )	2.71
Single Hazardous Air Pollutant (HAP)	negligible
Combination of HAPs	negligible

- (a) The potential to emit (PTE, as defined in 326 IAC 2–1.1-1) particulate matter and PM-10 is greater than 25 tons per year for each pollutant. Therefore, pursuant to 326 IAC 2-5.1-3, a construction permit is required.
- (b) Fugitive Emissions  
Since this type of operation is one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and 40 CFR 52.21, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are counted toward the determination of Prevention of Significant Deterioration (PSD) applicability.

## Actual Emissions

This is a new source and no previous emission data has been received from the source.

## County Attainment Status

The source is located in Huntington County.

Pollutant	Status
PM-10	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO<sub>x</sub>) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Huntington County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Huntington County has been classified as attainment or unclassifiable for the remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions  
Since this type of operation is one of the 28 listed source categories under 326 IAC 2-2 and 40 CFR 52.21, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are counted toward the determination of Prevention of Significant Deterioration (PSD) applicability.

## Source Status

New Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	0.13
PM10	0.12
SO <sub>2</sub>	0.18
VOC	0.08
CO	0.06
NO <sub>x</sub>	1.43
Single HAP	negligible
Combination HAPs	negligible

- (a) This new source is **not** a major stationary source because, even though it is one of the 28 listed source categories, it does not emit 100 tons per year or more of any regulated pollutant. Therefore, pursuant to 326 IAC 2-2 and 326 IAC 2-3, and 40 CFR 52.21, the Prevention of Significant Deterioration (PSD) and Emission Offset requirements do not apply.

## Part 70 Permit Determination

### 326 IAC 2-7 (Part 70 Permit Program)

This new source is not **currently** subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This is the first air approval issued to this source.

On February 11, 1999, the U. S. Environmental Protection Agency (U.S. EPA) issued a proposed National Emission Standard for Hazardous Air Pollutants (NESHAP)(326 IAC 20 and 40 CFR Part 63, Subpart RRR) for the secondary aluminum production source category. As a proposed rule, Subpart RRR applies to all new and existing secondary aluminum production facilities that are major sources of hazardous air pollutants (HAPs), as well to area sources of specified dioxin/furan (D/F) emitting units. As cited at proposed §63.1500 (b)(5) (Applicability), this includes sweat furnaces as an affected area source subject to a D/F emission limit. In its present form, Subpart RRR would be applicable to the sweat furnace as an area source of D/F emissions. As an area source potentially subject to a Section 112 requirement of the Clean Air Act, the applicant may be required to obtain a Part 70 permit pursuant to §63.1(c)(2) and 326 IAC 2-7-2(a)(3). Essentially, these two citations require Part 63 area sources not specifically exempted to obtain a Part 70 operating permit. The Part 70 operating permit exemption list of 326 IAC 2-7-2(b) does not exclude area sources in the secondary aluminum production source category. Unless the final version of Subpart RRR and/or 326 IAC 2-7-2(b) are revised to exclude sweat furnaces (as an affected area source) from the Part 70 operating permitting requirements, this new source may be required to obtain a Part 70 (Title V) operating permit. Due to general uncertainty regarding final rule language and requirements, Condition B.6(e) is added to this construction and operating permit as described below in the **State Rule Applicability** section.

### Federal Rule Applicability

- (a) This source is not subject to the requirements of the New Source Performance Standard (NSPS), 326 IAC 12, (40 CFR 60.19, Subpart S, Primary Aluminum Reduction), because the source does not perform primary aluminum reduction as defined in 40 CFR 60.193. Therefore, the requirements under 326 IAC 12, (40 CFR 60.19, Subpart S) do not apply.
- (b) There are currently no National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 63, applicable to this source. However, on February 11, 1999, the U. S. Environmental Protection Agency (USEPA) issued a proposed National Emission Standard for Hazardous Air Pollutants (NESHAP)(326 IAC 20 and 40 CFR Part 63, Subpart RRR) for the secondary aluminum production source category. As a proposed rule, Subpart RRR applies to all new and existing secondary aluminum production facilities that are major sources of hazardous air pollutants (HAPs), as well to area sources of specified dioxin/furan (D/F) emitting units. As cited at proposed §63.1500 (b)(5) (Applicability), this includes sweat furnaces as an affected area source subject to a D/F emission limit. In its present form, Subpart RRR would be applicable to the proposed aluminum sweat furnace. Should the source be subject to the requirements of Subpart RRR upon its final promulgation, the source will comply with all rule requirements by the applicable compliance date.

## State Rule Applicability - Entire Source

### 326 IAC 2-2 (Prevention of Significant Deterioration)

Pursuant to 326 IAC 2-2 and 40 CFR 52.21 (Prevention of Significant Deterioration), this source is not considered a major stationary source because, even though it is one of the 28 listed source categories (i.e., secondary metals production), it has the potential to emit less than 100 tons per year of any regulated pollutant. Therefore, the Prevention of Significant Deterioration (PSD) rules, 326 IAC 2-2 and 40 CFR 52.21, will not apply.

### 326 IAC 2-4.1-1 (New Source Toxics Control)

Pursuant to 326 IAC 2-4.1-1 (New Source Toxics Control), any new process or production unit, which in and of itself emits or has the potential to emit (PTE) 10 tons per year of any HAP or 25 tons per year of all HAPs combined, and is constructed or reconstructed after July 27, 1997, must be controlled using technologies consistent with Maximum Achievable Control Technology (MACT). While this is a new source to be constructed after the July 27, 1997 rule applicability date, no installation will result in a PTE single or total HAPs in excess of the respective thresholds. Therefore, the requirements of this rule do not apply to this source.

### 326 IAC 2-6 (Emission Reporting)

This source is not located in one of the specifically listed counties, nor does the source have the potential to emit CO, VOC, NO<sub>x</sub>, particulate matter (as PM<sub>10</sub>) or SO<sub>2</sub> in amounts at or exceeding one-hundred (100) tons per year, including fugitive emissions since the source is one of the twenty-eight (28) listed sources (i.e., secondary metals production). Therefore, 326 IAC 2-6 does not apply.

### 326 IAC 2-7 (Part 70 Permit Program)

Pursuant to 326 IAC 2-7-2 (a)(2) (Applicability), the following has been identified as needing a Part 70 permit: "any source, including an area source, subject to a standard or other requirement under Section 112 of the CAA, or required to have a Part 70 permit under 326 IAC 20, except that a source is not required to obtain a Part 70 permit solely because it is subject to regulations or requirements under Section 112(r) of the CAA." As noted previously, a NESHAP (Subpart RRR) has been proposed by U.S. EPA for the secondary aluminum production source category. The requirements of this Section 112 rule would apply to the proposed sweat furnace should the applicability section of Subpart RRR be unaltered upon final issuance. Because the proposed rule and 326 IAC 2-7-2 do not presently exempt area sources in the secondary aluminum source category, the requirements of 326 IAC 2-7 might apply upon final Subpart RRR issuance. Due to general uncertainty regarding final rule language and requirements, the following condition is added to this construction and operating permit as Condition B.6(e):

#### B.6 Minor Source Operating Permit [326 IAC 2-6.1]

- (e) The Permittee shall submit a written request to IDEM, OAM within 30 days of the date of final promulgation of 40 CFR 63, Subpart RRR, for a determination of applicability to the Part 70 operating permit requirements of 326 IAC 2-7. Upon return notification by IDEM, OAM, the Permittee shall comply as follows:
  - (1) Should IDEM, OAM decide that the source is subject to the Part 70 operating permit requirements, then pursuant to 326 IAC 2-7-4 and 326 IAC 2-5.1-4, the Permittee shall apply for a Title V operating permit within the time frame stated in the written notification by IDEM, OAM. The operation permit issued shall contain as a minimum the conditions in Section C and Section D of this permit.
  - (2) Should IDEM, OAM decide that the source is not subject to the Part 70 operating permit requirements, then:
    - (i) The Permittee shall maintain such notification in accordance with Section C - General Record Keeping Requirements of this permit.

- (ii) Pursuant to 326 IAC 2-6.1-7, the Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date established in the validation letter. If IDEM, OAM, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied. The operation permit issued shall contain as a minimum the conditions in Section C and Section D of this permit.

The source will comply with these requirements.

#### 326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

#### 326 IAC 6-4 (Fugitive Dust Emissions)

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

### State Rule Applicability - Individual Facilities

#### 326 IAC 6-3-2 (Process Operations)

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from metal processing in the aluminum sweating furnace shall not exceed 2.6 pounds per hour when operating at a process weight rate of 0.5 tons of metal per hour, as determined with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

The thermal afterburner shall be in operation at all times the aluminum sweating furnace is in operation, in order to comply with this limit.

**326 IAC 8-1-6 (New Facilities; General VOC Reduction Requirements)**

This rule applies to facilities located anywhere in the state that were constructed on or after January 1, 1980, which have a PTE VOC at 25 tons per year or more, and which are not otherwise regulated by another provision of Article 8. No facility at this source is regulated under any other provision of Article 8, nor does the source have a facility with a PTE VOC at 25 tons per year or more. Therefore, 326 IAC 8-1-6 is not applicable to this source.

**326 IAC 9-1-2 (Carbon Monoxide Emission Limits)**

This rule limits the carbon monoxide emissions from all stationary sources commencing operation after March 21, 1972. This includes sources of ferrous smelters and refuse incineration and burning equipment. The proposed aluminum sweating furnace is not a ferrous metal smelter, nor is the facility used for refuse incineration or burning. Therefore, the requirements of 326 IAC 9-1-2 do not apply to this source.

**326 IAC 11-5-1 (Fluoride Emission Limitations for Existing Primary Aluminum Plants)**

Pursuant to 326 IAC 11-5-1 (Applicability), the requirements of this rule apply to primary aluminum plants in operation on or before January 26, 1976. The proposed new source, inclusive of the aluminum sweating furnace, is not a primary aluminum plant. Therefore, the rule requirements do not apply to the source.

**Air Toxic Emissions**

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Construction Permit Application Form Y.

- (a) This source will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Clean Air Act Amendments.
- (b) The previous discussion regarding the proposed NESHAP (Subpart RRR), issued by U.S. EPA on February 11, 1999 for the secondary aluminum processing source category, includes a proposed dioxin/furan emission limit for aluminum sweat furnaces. This HAP emission limit was developed based on two stack tests for sweat furnaces. No emission factors are readily available for sweat furnaces; however, based on the relatively low magnitude of the proposed emission factor (0.80 nanograms per dry standard cubic meter or  $3.5 \times 10^{-10}$  grains per dry standard cubic foot), related emissions are expected to comply with (a) above. Therefore, no detailed air toxic calculations have been prepared.

**Conclusion**

The construction and operation of this aluminum sweating furnace with thermal afterburner at this secondary metals processing (reclamation) source shall be subject to the conditions of the attached proposed **New Source Construction and Minor Source Operating Permit 069-10650-00060**.

## Indiana Department of Environmental Management Office of Air Management

### Addendum to the Technical Support Document for a New Source Construction and Minor Source Operating Permit

#### Source Background and Description

**Source Name:** Heartland Aluminum  
**Source Location:** 125 S Nancy, Warren, Indiana 46792  
**County:** Huntington  
**SIC Code:** 5093, 3341  
**Operation Permit No.:** MSOP069-10650-00060  
**Permit Reviewer:** Michael Hirtler/EVP

On April 14, 1999, the Office of Air Management (OAM) had a notice published in the Herald Press, Huntington, Indiana, stating that Heartland Aluminum had applied for a New Source Construction and Minor Source Operating Permit to operate stationary secondary metals processing (reclamation) source consisting of an aluminum sweating furnace with a thermal afterburner. The notice also stated that OAM proposed to issue a permit for this installation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Upon further review, the OAM has decided to make the following revisions to the permit (bolded language has been added, the language with a line through it has been deleted).

#### Section B:

1. Condition B.6 (e) (page 6 of 21) has been revised to clarify that the source shall be responsible for determining whether Part 70 permitting requirements (326 IAC 2-7) will apply at the time of final promulgation of 40 CFR 63, Subpart RRR (National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production).

#### B.6 Minor Source Operating Permit [326 IAC 2-6.1]

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This document shall also become a minor source operating permit pursuant to 326 IAC 2-6.1 when, prior to start of operation, the following requirements are met:

- (e) The Permittee shall submit ~~a written request~~ **an applicability determination** to IDEM, OAM within 30 days of the date of final promulgation of 40 CFR 63, Subpart RRR, ~~for a determination of applicability to that rule and~~ the Part 70 operating permit requirements of 326 IAC 2-7. ~~Upon return notification by IDEM, OAM,~~ The Permittee shall comply as follows:
  - (1) ~~Should IDEM, OAM decide~~ **it be determined** that the source is subject to the Part 70 operating permit requirements, then pursuant to 326 IAC 2-7-4 and 326 IAC 2-5.1-4, the Permittee shall apply for a Title V operating permit within the time frame stated in the written notification by IDEM, OAM. The operation permit issued shall contain as a minimum the conditions in Section C and Section D of this permit.

- (2) Should ~~IDEM, OAM decide~~ **it be determined** that the source is not subject to the Part 70 operating permit requirements, then:
- (i) The Permittee shall maintain such notification in accordance with Section C - General Record Keeping Requirements of this permit.
  - (ii) Pursuant to 326 IAC 2-6.1-7, the Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date established in the validation letter. If IDEM, OAM, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied. The operation permit issued shall contain as a minimum the conditions in Section C and Section D of this permit.

Condition B.6(e) was also presented on pages 5 and 6 of 7 in the Technical Support Document (TSD) that was prepared in support of the draft permit. This Addendum to the Technical Support Document, therefore, also serves to revise the original TSD by updating Condition B.6(e) as shown above.

#### Section C:

1. Condition C.21 (e) (page 16 of 21) has been revised to provide greater clarity as follows:

C.21 ~~General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]~~

- (e) All instances of deviations ~~as described in Section B- Deviations from Permit Requirements Conditions~~ must be clearly identified in such reports. ~~The Emergency/Deviation Occurrence Report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~ **A reportable deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:**
- (1) **An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or**
  - (2) **A malfunction as described in 326 IAC 1-6-2; or**
  - (3) **Failure to implement elements of the Preventive Maintenance Plan unless lack of maintenance has caused or contributed to a deviation.**
  - (4) **Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.**

**A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred or failure to monitor or record the required compliance monitoring is a deviation.**

## **Forms**

The Malfunction Report Form (pages 20 and 21 of 21) has been revised as presented on the following pages.

**MALFUNCTION REPORT**

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR MANAGEMENT  
FAX NUMBER - 317 233-5967**

**This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6  
and to qualify for the exemption under 326 IAC 1-6-4.**

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 ~~LBS/HR~~  
TONS/YEAR PARTICULATES MATTER ? ~~100 LBS/HR~~ VOC ? ~~100 LBS/HR~~ 25 TONS/YEAR SULFUR DIOXIDE ? ~~25~~  
OR 2000 LBS/HR OF ANY OTHER POLLUTANT ? 25 TONS/YEAR NITROGEN OXIDES ? ~~25~~ TONS/YEAR VOC ? ~~25~~  
TONS/YEAR HYDROGEN SULFIDE ? ~~25~~ TONS/YEAR TOTAL REDUCED SULFUR ? ~~25~~ TONS/YEAR  
REDUCED SULFUR COMPOUNDS ? ~~25~~ TONS/YEAR FLUORIDES ? ~~100~~ TONS/YEAR CARBON MONOXIDE  
? ~~10~~ TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ? ~~25~~ TONS/YEAR ANY COMBINATION  
HAZARDOUS AIR POLLUTANT ? ~~1~~ TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD  
? ~~1~~ OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ? ~~1~~. EMISSIONS FROM MALFUNCTIONING CONTROL  
EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION \_\_\_\_\_.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC \_\_\_\_\_ OR, PERMIT CONDITION # \_\_\_\_\_ AND/OR PERMIT  
LIMIT OF \_\_\_\_\_.

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ?    Y        N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ?    Y        N

COMPANY: Heartland Aluminum PHONE NO. ( 219 ) 375 - 4650

LOCATION: (CITY AND COUNTY) Warren, Huntington County

PERMIT NO. MSOP 069-10650-00060 AFS PLANT ID: \_\_\_\_\_ AFS POINT ID: \_\_\_\_\_ INSP: \_\_\_\_\_

CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: \_\_\_\_\_

DATE/TIME MALFUNCTION STARTED: \_\_\_\_/\_\_\_\_/19\_\_\_\_ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: \_\_\_\_\_

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE \_\_\_\_/\_\_\_\_/19\_\_\_\_ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO<sub>2</sub>, VOC, OTHER: \_\_\_\_\_

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: \_\_\_\_\_

MEASURES TAKEN TO MINIMIZE EMISSIONS: \_\_\_\_\_

**REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:**

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL\* SERVICES: \_\_\_\_\_

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: \_\_\_\_\_

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: \_\_\_\_\_

INTERIM CONTROL MEASURES: (IF APPLICABLE) \_\_\_\_\_

MALFUNCTION REPORTED BY: \_\_\_\_\_ TITLE: \_\_\_\_\_

(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

FAX NUMBER - 317 233-5967

PAGE 1 OF 2

**Please note - This form should only be used to report malfunctions  
applicable to Rule 326 IAC 1-6 and to qualify for  
the exemption under 326 IAC 1-6-4.**

**326 IAC 1-6-1                      Applicability of rule**

Sec. 1. ~~The requirements of This rule (326 IAC 1-6) shall apply~~ **applies** to the owner or operator of any facility ~~which has the potential to emit twenty-five (25) pounds per hour of particulates, one hundred (100) pounds per hour of volatile organic compounds or SO<sub>2</sub>, or two thousand (2,000) pounds per hour of any other pollutant, or to the owner or operator of any facility with emission control equipment which suffers a malfunction that causes emissions in excess of the applicable limitation required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.~~

**326 IAC 1-2-39                      “Malfunction” definition**

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. ~~(Air Pollution Control Board; 326 IAC 1-2-39; filed Mar 10, 1988, 1:20 p.m. : 11 IR 2373)~~

**\*Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

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## Appendix A: Secondary Metal Production

Page 1 of 2 TSD App A

Aluminum  
Company Name: Heartland Aluminum  
Address City IN Zip: 125 South Nancy, Warren, Indiana 46792  
MSOP: 069-10650-00060  
Reviewer: Michael Hirtler/EVP  
Date: February 26, 1999

## Uncontrolled Potential to Emit

SCC# 3-04-001-01

Sweating Furnace

TYPE OF RAW MATERIAL	Throughput LBS/HR	1 TON/2000 lbs	TON/HR			
Irony Aluminum	1000	2000	0.5			
	PM lbs/ton Processed 14.5	PM10 lbs/ton Processed 13.3	SOx lbs/ton Produced 3.5	NOx lbs/ton Produced 0.6	VOC lbs/ton Produced 0.2	CO lbs/ton Produced --
Potential Emissions lbs/hr	7.25	6.65	1.75	0.30	0.10	--
Potential Emissions tons/year	31.76	29.13	7.67	1.31	0.44	--

## Controlled Potential to Emit

SCC# 3-04-001-01

Sweating Furnace

TYPE OF RAW MATERIAL	Afterburner Control Efficiency	Throughput LBS/HR	1 TON/2000 lbs	TON/HR		
Irony Aluminum	97.8%	1000	2000	0.5		
	(PM/PM10) 90.0%					
	(VOC)					
	PM lbs/ton Processed 14.5	PM10 lbs/ton Processed 13.3	SOx lbs/ton Produced 3.5	NOx lbs/ton Produced 0.6	VOC lbs/ton Produced 0.2	CO lbs/ton Produced --
Potential Emissions lbs/hr	0.16	0.15	1.75	0.30	0.01	--
Potential Emissions tons/year	0.02	0.01	0.17	0.03	0.00	--

## 326 IAC 6-3-2 Compliance Determination:

The allowable PM emission rate pursuant to 326 IAC 6-3-2(c), Process Operations, for weight rates up to 60,000 lb/hr is determined using the following formula:  
 $E = 4.1 * P^{0.67}$  where: E = allowable PM emission rate (lb/hr)  
P = process weight rate (tons/hr)

Emissions Unit	326 IAC 6-3-2 Process Weight Rate tons/hour	Particulate Matter Emission Rate (lb/hr)	
		Potential lb/hr	Allowable lb/hr
Potential Emissions lbs/hr	0.50	0.16	2.58 (will comply)

PM &amp; PM10 emission factors from U.S. EPA FIRE emissions estimation software, version 6.01. Remaining factors taken from AIRS for SCC 30400101.

**Appendix A: Emission Calculations**  
**Natural Gas Combustion**  
**MM Btu/hr < 0.3**

**Company Name:** Heartland Aluminum  
**Address City IN Zip:** 125 South Nancy, Warren, Indiana 46792  
**MSOP:** 069-10650-00060  
**Reviewer:** Michael Hirtler/EVP  
**Date:** February 26, 1999

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

3.4

29.8

Heat Input Capacity includes:

Sweating furnace consisting of 2.0 MMBtu/hr and 1.0 MMBtu/hr primary & secondary chambers, respectively, & 0.4 MMBtu/hr thermal afterburner

	Pollutant					
Emission Factor in lb/MMCF	PM 7.60	PM10 7.60	SO2 0.6	NOx 94.0	VOC 5.5	CO 40.0
Potential Emission in tons/yr	0.11	0.11	0.01	1.40	0.08	0.60

Methodology:

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

All PM is assumed to be less than 1.0 micrometer in diameter. Therefore, the PM emission factors may be used to estimate PM10, PM2.5, and PM1 emissions.

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1 and 1.4-2, Residential Furnaces (no SCC)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton